



ARC 500

Stud Welding Unit
for ARC stud welding
according to current standards

Technical Data

Gas/Automation	Option/Option
Welding range	M3 to MR10, dia. 2 to 8 mm
Welding material	Mild steel, stainless steel
Welding rate	5 to 15 studs/min (depending on application and stud dia.)
Welding current	580 A
Welding time	5 to 350 msec
Primary power	400 V, 3 phases, 50/60 Hz, 35 AT (alternative input voltages available)
Primary plug	32 A (at 400 V mains)
Power source	Transformer/Rectifier
Cooling type	F (temperature controlled cooling fan)
Protection class	IP 23
Operational and storage conditions	According to current standards
Dimension L x W x H	470 x 230 x 220 mm (without handle)
Weight	31 kg
Order No.	93-10-0401A 93-10-0402A (Gas) 93-10-0404A (Gas/Automation)

General Information

Application

- Especially suitable for thicker sheets of about 2 mm or higher
- **ISO** – especially suitable for attaching cut-to-length ARC-ISO and Fiberfix pins; also material with high heat resistance; excellent for insulation applications in building construction and fire-resistant insulation (FRI)

Process variants

- **Short cycle drawn arc welding**
- **Drawn arc welding**

Equipment

- **Welding with ceramic ferrule** (series)
- **Welding with shielding gas** (optional)
- **Automatic** (optional)



Advantages

Features

- **Microcontroller** – for precise process times, optimal functional reliability and maximum operating convenience
- **Function monitoring** – automatic function test following power-up; monitoring of all internal system functions
- **Display of error codes** – on digital display
- **Lift test** – for gap welding guns and stud welding heads

Structure

- **Extremely easy to operate**
- **Compact**
- **Robust** – metal housing withstands rough treatment in shop and on site

Safety

- With integrated **mains filter** (protection against voltage peaks)
- **Optimal for construction sites with large mains voltage fluctuations** – use even with critical voltage supply (- 10% + 10%)
- **EMC test**
- **High-voltage test with log**
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of transformer** – automatic shutdown in case of overheating
- **Temperature-regulated ventilator** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Consistent separation of transformer and control unit** – protects electronic components against dust and thermal loading
- **Control unit galvanically separated from welding lines** – high degree of functional safety
- **Cooling-air tunnel** – channelling of cooling air to the transformer protects electronic components against dirt and dust
- **Optimal protection against external interferences**
- **Protection class IP 23**
- Also permits operation outdoors

Welding

- **Display** – infinitely adjustable power setting; easy monitoring of all functions via LED displays; display of welding and gas-preflow time (optional: pneumatic feed time for automation); control and monitoring of all system functions
- **Powerful** – built-in power reserves
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables

Suitable stud welding guns/ -heads

- **A 12, A 16, AI 06**
- **CA 08**
- **PAH-1 (only suitable for automatic version)**
- **KAH 412 (only suitable for automatic version)**

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(Technical data may change)